

REMARKS

A. Background

Claims 1-62 were pending in the application at the time of the Office Action. The Office Action objected to the specification and drawings on formal grounds. Claims 1-19, 21-28, 30, 33-40, 42, 45-50, 52, 53, 57-60, and 62 were rejected as being anticipated and/or obvious over cited prior art. Claims 20, 29, 31, 32, 41, 43, 44, 51, 54-56, and 61 were either allowed or objected to as being dependent upon a rejected base claim. By this response, Applicant has amended claims 1, 3-4, 9-10, 13, 20, 21, 33, 34, 35, 52 and 62, cancelled claims 2, 28-29 and 44, and added new claims 63-77. As such, claims 1, 3-27, 30-43 and 45-77 are presented for the Examiner's consideration in light of the following remarks.

B. Proposed Amendments

Claim amendments related to independent claim 1

By this amendment, claims 1, 3-4, 9-10, 13 and 20 have been amended, claim 2 was cancelled and new claim 63 was added.

Claim 1 was amended to incorporate the limitations of claim 2. As such, claim 2 has been cancelled. Claim 3 has been amended to correct the dependency due to the cancellation of claim 2.

Further, claim 1 was amended to recite "means for insulating at least a portion of the bottom surface of the elongated body." Applicant asserts that allowed claim 20 provides the basis for this claim amendment. The recited "means for insulating at least a portion of the bottom surface of the elongated body" recites a genus claim wherein claim 20 is a species thereof.

As disclosed in the specification, at least two embodiments of insulating at least a portion of the bottom surface of the elongated body are disclosed. The first embodiment is described in the specification at paragraph [0083] which describes, with emphasis added, that “an insulation layer 158 is formed or otherwise secured on bottom surface 137 **Insulation layer 158 has a temperature lower than top surface 135.**” Applicant asserts that this disclosure in the specification provides the basis for allowed claim 20. Claim 20 has been amended to recite that this first embodiment is one “means for insulating at least a portion of the bottom surface of the elongated body.”

The second embodiment is described in the specification at paragraph [0089] through [0091] which describes “a tubular body 163 having a top surface 135A and an opposing bottom surface 137A Body 163, however, also has an interior surface 165 that bounds a compartment 160 extending along the length of body 163.” Specification, paragraph [0089]. The specification further describes that “[o]ne embodiment of the means for heating baffle 162 comprises inserting body 138 into compartment 160 of baffle 162 and heating body 138 using one of the embodiments as previously discussed.” Specification, paragraph [0090]. In addition, a gap 164 can be formed by resting the body 138 directly against top surface 135A. **“Gap 164 provides an insulation layer between body 138 and bottom surface 137A In other embodiments, a physical insulation layer can be disposed between body 138 and bottom surface 137A.”** Specification, paragraph [0091] (emphasis added). Claim 13 has been amended to recite that this second embodiment is one “means for insulating at least a portion of the bottom surface of the elongated body.”

Thus, “means for insulating at least a portion of the bottom surface of the elongated body” clearly finds support in the original specification with both of the above embodiments including

the ability to keep the bottom surface of the elongate body cooler than the top surface to prevent super heating of the oil vapors in the collection channel. As such, Applicant respectfully submits that such amendment does not add new matter.

Claims 4, 9 and 10 were amended to change their dependency from claim 1 to claim 73.

New claim 63 depends from independent claim 1 and further recites that “the means for selectively heating comprises at least one channel formed along at least a portion of the length of the elongated body, wherein the at least one channel is adapted to receive at least one of: at least a portion of at least one electrical heating element; or heated fluid passing through at least a portion of the at least one channel.” Applicant asserts that this amendment is based in the original specification at paragraph [0080] which states, with emphasis added:

means are provided for selectively heating baffle 126. By way of example and not by limitation, **a plurality of spaced apart channels 144** extend from first end face 140 of body 138 to or toward second end face 142. **Disposed within channels 144 is a conventional electrical resistance filament 146** In yet other embodiments of the means for heating baffle 126, **fluid conduits are formed within body 138.** Heated gases or fluids are pumped or otherwise passed through the fluid conduits so as to heat body 138.

As such, Applicant asserts that the amendments to claim 1, 3-4, 9-10, 13, 20 and the subject matter of new claim 63 is based in the original specification as filed and that no new matter has been added.

Claim amendments related to independent claim 21

By this amendment, claim 21 was amended and claims 28 and 29 were cancelled.

Claim 21 was amended to incorporate the limitations of claim 28 and allowed claim 29. Furthermore, “heating filament” was changed to “heating element.” Claim 29 depended from claim 28, which, in turn, depended from claim 21. As such, both claims 28 and 29 have been

cancelled. Applicant respectfully submits that such amendments to claim 21 do not add new matter.

Claim amendments related to independent claim 33

By this amendment, claims 33 and 34 were amended and new claims 64 through 67 were added.

Claim 33 was amended to recite “wherein the plurality of baffles has a common maximum width, the plurality of baffles including: a first row of baffles each horizontally separated by a first distance substantially equal to or less than the common maximum width; and a second row of baffles each horizontally separated by the first distance substantially equal to or less than the common maximum width, the second row of baffles being vertically separated from the first row by a second distance, each baffle of the second row being centrally disposed substantially midway between corresponding baffles of the first row.” Applicant respectfully submits that such amendment is based in the original specification at paragraphs [0093] and [0096] through [0100]. Specifically, Figures 10 and 10A and accompanying description depict embodiments where the distance D_1 between the baffles is equal to or less than the width w of each baffle.

Claim 34 was amended to correct the dependency therein.

New claims 64 and 65 depend from independent claim 33 and were added to cover two embodiments of staggered baffles disclosed in the original specification, examples of the staggered baffles are shown in Figures 10 and 10A. As described in the specification, “in contrast to Figure 10 wherein where alternating rows of baffles 126 **vertically overlap**, depicted in Figure 10A alternating rows of baffles 126 can be placed so that the outer ends 230 of baffles 126 are **vertically aligned** as opposed to overlapping.” Specification, paragraph [0100] (emphasis added).

New claims 66 and 67 depend from claim 33 and further describe various embodiments for “means for heating the feed material within the heating chamber,” the basis of which have been described above.

In view of the foregoing, Applicant submits that the amendment to claim 33 and 34 and the subject matter of claims 64 through 67 are based in the original specification as filed and that no new matter has been added.

Claim amendments related to independent claim 35

By this amendment, claim 35 was amended and claim 44 was cancelled.

Claim 35 was amended to incorporate the limitations of allowed claim 44. Furthermore, ‘heating filament’ was changed to ‘heating element.’ As such, claim 44 has been cancelled. Applicant respectfully submits that such amendments to claim 35 do not add new matter.

Claim amendments related to independent claim 52

By this amendment, claim 52 was amended.

Claim 52 was amended to recite “heating the baffles using at least one electrical heating element disposed at least partially on, within or directly to at least one baffle.” Using an electrical heating element to heat the baffles is based in the original specification as filed. *See, e.g.*, Specification, paragraph [0080]. As such, Applicant respectfully submits that the amendment to claim 52 does not introduce new matter.

Claim amendments related to independent claim 62

By this amendment, claim 62 was amended and new claims 68 through 72 were added.

Claim 62 has been amended to recite “passing a feed material down through a heating chamber of a retort, the heating chamber having a first row of baffles disposed therein, the baffles having a common maximum width, each baffle in the first row being horizontally

separated by a first distance substantially equal to or less than the common maximum width; passing the feed material down through a second row of baffles vertically separated from the first row by a second distance, each baffle of the second row being horizontally separated by the first distance substantially equal to or less than the common maximum width and each baffle of the second row being centrally disposed midway between corresponding baffles of the first row, such that substantially all of the feed material that vertically passes down through the heating chamber is horizontally displaced as the feed material passes by the baffles.” Applicant respectfully submits that the amendments to claim 62 are based in the specification as described above.

New claim 68 depends from independent claim 62 and further recites“wherein heating the feed material within the heating chamber comprises using at least one electrical heating element disposed at least partially on, within or directly to at least one baffle,” the basis of which has been described above.

New claims 69 depends form independent claim 62 and further clarifies that“collecting the oil vapor from within the heating chamber comprises collecting the oil vapor in a collection channel formed on a bottom side of a corresponding baffle,” the basis of which is described above.

New claims 70 through 72 depend from independent claim 62 and recite limitations similar to original claims 58, 59 and 60.

As such, Applicant submits that the amendments to claim 62 and the addition of new claims 68 through 72 do not add new matter.

New claims 73 through 77

New independent claim 73 was added to cover another embodiment of the baffle. Applicant asserts that the limitations in claim 73 are based in original claims 1, 2, and 12.

New claim 74 recites limitations similar to original claim 3.

New claims 75 through 77 cover embodiments for “means for insulating at least a portion of the bottom surface of the elongated body,” the basis of which is described above.

As such, Applicant respectfully submits that the addition of new claims 73 through 77 does not introduce new matter.

In view of the foregoing discussion, applicant respectfully requests entry of the above amendments to the claims.

C. Rejection on the Merits

Paragraphs 1 and 2 of the Office Action reject claims 52, 53, and 62 under 35 USC § 102(b) as being anticipated by U.S. Patent No. 4,948,468 to Reeves et al. Paragraph 3 of the Office Action rejects claims 1-7, 11, 21-23, 26-28, 30, 33, 35-40, 45, and 47 under 35 USC § 102(b) as being anticipated by U.S. Patent No. 4,165,216 to White et al. Paragraph 4 of the Office Action rejects claims 1, 4, and 11-19 under 35 USC § 102(b) as being anticipated by U.S. Patent No. 2,786,125 to Drugmand et al. Paragraph 5 of the Office Action rejects claims 1-4, 21, 22, 28, 33, 35, 36, 37, 38, and 42 under 35 USC § 102(b) as being anticipated by U.S. Patent No. 2,814,587 to Dijck.

Paragraphs 6 and 7 of the Office Action reject claims 8-10, 24, 25, 34, 48, and 49 under 35 USC § 103(a) as being obvious over the White patent in view of what the examiner asserts to be known to those skilled in the art. Paragraph 8 of the Office Action rejects claims 5-9 under 35 USC § 103(a) as being obvious over the Drugmand patent in view of what the examiner asserts

to be known to those skilled in the art. Paragraph 9 of the Office Action rejects claims 5-10, 23-26, 34, 45, and 48-50 under 35 USC § 103(a) as being obvious over the Dijck patent in view of what the examiner asserts to be known to those skilled in the art. Paragraph 10 of the Office Action rejects claims 58-60 under 35 USC § 103(a) as being obvious over the Reeves patent in view of what the examiner asserts to be known to those skilled in the art. Paragraph 11 of the Office Action rejects claim 57 under 35 USC § 103(a) as being obvious over the Reeves patent in view of U.S. Patent No. 4,60,812 to Anderson et al.

Paragraph 12 of the Office Action objects to claims 20, 29, 31-32, 41, 43, 44, 51, 54-56, and 61 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claims and any intervening claims.

For purposes of addressing the various rejections, Applicant will address each independent claim.

Independent claim 1

Independent claim 1 was rejected as anticipated in view of the Drugmand, White and Dijk references. The Drugmand reference teaches a heater element that can be “wrapped about the exterior of a tank.” ‘125 patent, col. 1, ll. 32-33. The Drugmand reference emphasizes, “Until the present time, however, **such elements have not been widely used because of their cost and because of the difficulty in efficiently and satisfactorily holding the element in good thermal relation with the outer wall surface of the tank.**” *Id.* at col. 1, ll. 39-43 (emphasis added). As such, the heating element “may be **readily bent to conform to the curvature of the outer wall of the tank.**” *Id.* at col. 1, ll. 50-51 (emphasis added). The heater includes a bottom surface 10 which is taught to be “wide and **generally flat.**” *Id.* at col. 2, ll. 34-37 (emphasis added). Because the Drugmand reference teaches that the heating element is generally flat to conform to the

curvature of the outer wall of the tank, the Drugmand reference does not teach “at least a portion of the bottom surface at least partially bounding a collection channel adapted to collect gases or vapors,” as recited in independent claim 1.

Furthermore, the Drugmand reference specifically teaches away from modifying a heating element to include a structure which would decrease the efficiency of heating the outer wall of a tank. Modifying the heating element of the Drugmand reference to include a collection channel would create air insulation between the bottom surface of the heating element and the wall of the tank, thus decreasing the efficiency of the heating element. Therefore, such modification would destroy the intended purpose of the heating element of the Drugmand reference and, hence, the Drugmand reference specifically teaches away from such modification. As such, the Drugmand reference does not anticipate nor render obvious the limitations of claim 1 by itself or in combination with White and/or Dijk. Applicant, therefore, respectfully requests that the anticipation rejection of claim 1 based on the Drugmand reference be withdrawn.

Claim 1 was also rejected as anticipated by the White reference. The Abstract of the White reference summarizes as follows:

an apparatus and process for drying and/or heating materials Feed material is disposed in a reactor, wherein there is provided a first array of input channels extending through said feed material, through which hot gases are introduced into said feed material, and a second array of output channels extending through said feed material to collect and exit those hot gases and any gases or vapors derived from the heating and/or drying of the feed material.

The reactor of the White reference is described in further detail as follows:

Reactor unit 11 has a wall 45 on its one side, and opposed alternately stacked input 51 and output 40 reactor modules. FIG. 5 shows a typical output module 40. Output pipe 26 is connected to output module 40 which has **angled members 44** connected to its core 42 at holes 43

. . . .

. . . . Hot gases flow from feed pipe 41, through input pipe 22, into core 42 on through the five holes 43, and into channels 53 created by angled members 44 and 52. The hot gases then circulate through feed material 12 and are collected by and exit through channels 53 created by angled members 44 of the output modules 40

216 Patent, col. 3, ll. 60-65, col. 4, ll. 20-25 (emphasis added). Thus, hot gases flow around the angled members 44 and 52, but nowhere in the White reference does it teach or suggest “means for insulating at least a portion of the bottom surface of the elongated body,” as recited in independent claim 1.

The Office Action allowed claim 20, which depends from independent claim 1, stating:

the best prior art to White does not teach that the top surface of the body is comprised of a first material and the bottom surface of the body is comprised of a second material, the second material being different than the first material such that the body is heated, the bottom surface is cooler than the top surface.

Office Action, page 14. Applicant asserts that the “means for insulating at least a portion of the bottom surface of the elongated body” recites a genus wherein claim 20 is a species thereof.

As disclosed in the specification, at least two examples of embodiments of insulating at least a portion of the bottom surface of the elongated body are disclosed. The first embodiment is described in the specification at paragraph [0083] which describes, with emphasis added, that “an insulation layer 158 is formed or otherwise secured on bottom surface 137 **Insulation layer 158 has a temperature lower than top surface 135.”**

The second embodiment is described in the specification at paragraph [0089] through [0091] which describes “a tubular body 163 having a top surface 135A and an opposing bottom surface 137A Body 163, however, also has an interior surface 165 that bounds a compartment 160 extending along the length of body 163.” Specification, paragraph [0089]. The specification further describes that “[o]ne embodiment of the means for heating baffle 162 comprises inserting body 138 into compartment 160 of baffle 162 and heating body 138 using

one of the embodiments as previously discussed.” Specification, paragraph [0090]. In addition, a gap 164 can be formed by resting the body 138 directly against top surface 135A. **“Gap 164 provides an insulation layer between body 138 and bottom surface 137A In other embodiments, a physical insulation layer can be disposed between body 138 and bottom surface 137A.”** Specification, paragraph [0091] (emphasis added).

Applicant agrees that claim 20 is not taught or suggested in the White reference. In addition, Applicant asserts that the genus “means for insulating at least a portion of the bottom surface of the elongated body” is also not taught or suggested in the White reference. Thus, Applicant respectfully requests that the anticipation rejection to claim 1 based on the White reference be withdrawn.

Finally, independent claim 1 was rejected as anticipated in view of the Dijk reference. The Dijk reference teaches a method and apparatus for recovering shale oil from oil shale using a retort housing 1. The retort has various zones: (1) a preheating zone, (2) a retorting zone, (3) a combustion zone, and (4) a zone for preheating a combustion supporting gas. ‘587 at col. 2, ll. 8-11. In the retort housing 1 are gas distributing devices 10, 12 and gas collecting devices 14, 29. As discussed above, claim 20 was considered allowable over the prior art and thus the genus “means for insulating at least a portion of the bottom surface of the elongated body” is not taught or suggested by the Dijk reference. As such, Applicant respectfully requests that the anticipation rejection to claim 1 based on the Dijk reference be withdrawn.

Claims 3-20 and 63 depend from claim 1 and thus incorporate the limitations thereof. As such, applicant submits that claims 3-20 and 63 are distinguished over the cited prior art for at least the same reasons as discussed above with regard to claim 1.

Independent claim 21

Independent claim 21 was rejected as anticipated by the White and Dijk references. However, the Office Action considered claim 29 to be allowable over the prior art. By this response, Applicant has amended claim 21 to incorporate the limitations of claim 29. Furthermore, “heating filament” was changed to “heating element.” Claim 29 depends from claim 28, which, in turn, depends from claim 21. Thus, the limitations of claim 28 have also been incorporated into claim 21. Applicant submits that claim 21 is now in condition for allowance and respectfully requests that the anticipation rejection based on the White and Dijk reference be withdrawn.

Claims 22-27 and 30-32 depend from claim 21 and thus incorporate the limitations thereof. As such, applicant submits that claims 22-27 and 30-32 are distinguished over the cited prior art for at least the same reasons as discussed above with regard to claim 21.

Independent claim 33

Independent claim 33 was rejected as anticipated by the White and Dijk references. As discussed above, the Dijk reference teaches heating apparatuses having gas distributing/collecting devices 10, 12, 14, 29. However, the gas distributing/collecting devices 10, 12, 14, 29 in the Dijk references are shown in Figure 1 as being vertically aligned with each other. Thus, the Dijk reference does not teach: “wherein the plurality of baffles has a common maximum width, the plurality of baffles including: a first row of baffles each horizontally separated by a first distance substantially equal to or less than the common maximum width; and a second row of baffles each horizontally separated by the first distance substantially equal to or less than the common maximum width, the second row of baffles being vertically separated from the first row by a second distance, each baffle of the second row

being centrally disposed substantially midway between corresponding baffles of the first row,” as recited in independent claim 33.

While the White reference shows angled members 44 and 52 in a staggered configuration, lines drawn from the edges of aligned angled members clearly shows that a vertical space exists between the edges of one row of angled members and a vertically adjacent row of angled members. Thus, the White reference does not teach “wherein the plurality of baffles has a common maximum width, the plurality of baffles including: a first row of baffles each horizontally separated by a first distance substantially equal to or less than the common maximum width; and a second row of baffles each horizontally separated by the first distance substantially equal to or less than the common maximum width, the second row of baffles being vertically separated from the first row by a second distance, each baffle of the second row being centrally disposed substantially midway between corresponding baffles of the first row,” as recited in independent claim 33. As such, Applicant respectfully submits that positioning the baffles of a first row and a second row as recited in independent claim 33 is not anticipated by the White reference.

In addition, the positioning recited in claim 33 would not be obvious over the White reference. The specification of the present invention describes the advantages of such a configuration as follows:

The size, configuration, spacing, staggering, and other parameters of baffles 126 are designed in part to ensure that the feed material is **uniformly heated and mixed** as it travels down retort 32. The parameters for baffles 126, however, are also set to ensure that the feed material can **freely flow down through the baffles 126 under the force of gravity at a desired speed without significant stacking, clogging, or fusing together**.

For example, by having the distance D_1 between baffles 126 equal to the width w of baffles 126 and then by staggering the rows of baffles as discussed above, **there are no straight paths down through baffles 126**. Rather, the feed

material is required to continually contact and move around baffles 126 to obtain the desired heating. Furthermore, by vertically spacing the rows of baffles 126 as discussed above, the moving and mixing of the feed material is substantially constant. As a result, the feed material is uniformly heated and no two particles are left in contact for a sufficient period of time to permit them to fuse together so as to form a clinker. Finally, the parameters for baffles 126 also prevent portions of the feed material particles from stacking or otherwise becoming stagnant within retort 32. Stagnant feed material particles, as discussed above, can eventually block the flow of feed material or produce clinkers that block the flow through baffles 126.

. . . .

As the feed material travels down through heating chamber 120', the feed material passes over and around the array of baffles 126. The surrounding feed material and the internal structure of heating chamber 120' forces the descending feed material to follow generally curved paths, such as approximately helical paths, sinusoidal paths, undulating paths, irregularly meandering paths, and/or other curved paths. The dynamic flow of the feed material through baffles 126 uniformly mixes the feed material and minimizes any constant contact by two feed material particles descending through heating chamber 120'. By minimizing constant contact of particles, the formation of clinkers, where two or more particles bind together, can be minimized or eliminated. The formation of clinkers can block the flow the feed material through baffles 126 and reduce efficiency of oil vapor extraction.

. . . .

As a result of the staggering of rows of baffles 126, the other feed material particles that did not directly contact the first row of baffles 126 are now aligned for contacting the next row of heated baffles 126. Thus, the feed material moves through the array of baffles 124 in a fluidized manner so that the feed material is continually mixed and periodically contacts heated baffles 126. As a result, the feed material has a substantially uniform temperature at each vertical stage of heating chamber 120'.

Although not necessarily required, substantial uniform heating of the feed material along heating chamber 120' has a number of benefits. First, uniform heating of the feed material ensures optimal extraction of the oil vapor and hydrocarbon gases from all of the feed material. Furthermore, uniform heating of the feed material along heating chamber 120' ensures that substantially the same types of oil vapor and hydrocarbon gas are being emitted at the same vertical stages. This enables at least partial fractional vaporization of the oil vapors and hydrocarbon gases at the time of formation

Specification, paragraphs [0096] through [0121] (emphasis added). Thus, as described in the specification, there are significant benefits with staggering the baffles in the manner recited in claim 33.

Claims 34 and 64-67 depend from claim 33 and thus incorporate the limitations thereof. As such, applicant submits that claims 34 and 64-67 are distinguished over the cited prior art for at least the same reasons as discussed above with regard to claim 33.

Independent claim 35

Independent claim 35 was rejected as anticipated by the White and Dijk references. However, the Office Action considered claim 44 to be allowable over the prior art. By this response, Applicant has amended claim 35 to incorporate the limitations of claim 44. Furthermore, “heating filament” was changed to “heating element.” Applicant submits that claim 35 is now in condition for allowance and respectfully requests that the anticipation rejections based on the White and Dijk reference be withdrawn.

Claims 36-43 and 45-51 depend from claim 35 and thus incorporate the limitations thereof. As such, applicant submits that claims 36-43 and 45-51 are distinguished over the cited prior art for at least the same reasons as discussed above with regard to claim 35.

Independent claim 52

Independent claim 52 was rejected as anticipated over the Reeves reference. The Reeves reference is directed to “a retorting apparatus including a vertical kiln and a plurality of tubes for delivering rock to the top of the kiln . . . so that the rock descends through the kiln as a moving bed. Distributors are provided for delivering gas to the kiln to effect heating of the rock and to distribute the rock particles during their descent.” ‘468 patent, Abstract. However, the Reeves reference does not teach “heating the baffles using at least one electrical heating element disposed

at least partially on, within or directly to at least one baffle,” as recited in independent claim 52. As such, Applicant respectfully requests that the anticipation rejection to claim 52 based on the Reeves reference be withdrawn.

Claims 53-61 depend from claim 52 and thus incorporate the limitations thereof. As such, applicant submits that claims 53-61 are distinguished over the cited prior art for at least the same reasons as discussed above with regard to claim 52.

Independent claim 62

Independent claim 62 was rejected as anticipated over the Reeves reference. The Reeves reference is directed to “a retorting apparatus including a vertical kiln and a plurality of tubes for delivering rock to the top of the kiln . . . so that the rock descends through the kiln as a moving bed. Distributors are provided for delivering gas to the kiln to effect heating of the rock and to distribute the rock particles during their descent.” ‘468 patent, Abstract. However, the Reeves reference does not teach “passing a feed material down through a heating chamber of a retort, the heating chamber having a first row of baffles disposed therein, the baffles having a common maximum width, each baffle in the first row being horizontally separated by a first distance substantially equal to or less than the common maximum width; passing the feed material down through a second row of baffles vertically separated from the first row by a second distance, each baffle of the second row being horizontally separated by the first distance substantially equal to or less than the common maximum width and each baffle of the second row being centrally disposed midway between corresponding baffles of the first row, such that substantially all of the feed material that vertically passes down through the heating chamber is horizontally displaced as the feed material passes by the baffles,” as recited in independent claim 62. As such, Applicant

respectfully request that the anticipation rejection to claim 62 based on the Reeves reference be withdrawn.

New claims 68–72 depend from claim 62 and thus incorporate the limitations thereof. As such, applicant submits that claims 68-72 are distinguished over the cited prior art for at least the same reasons as discussed above with regard to claim 62.

New independent claim 73

New independent claim 73 is also distinguishable over the Drugmand, White, Dijk and Reeves references, by themselves or in combination. As discussed above, none of the White, Dijk and/or Reeves references teaches “at least one electrical heating element mounted at least partially on, within, or directly adjacent to the elongated body for selectively heating the elongated body,” as recited in independent claim 73. In addition, it would not be obvious to combine the Drugmand reference the White, Dijk and/or Reeves references because the Drugmand reference does not teach “at least a portion of the bottom surface at least partially bounding a collection channel adapted to collect gases or vapors” as recited in independent claim 73. As argued above with regard to claim 1, the Drugmand reference teaches away from such a limitation. As such, Applicant respectfully submits that new independent claim 73 is distinguishable over the cited references.

Claims 74-77 depend from claim 73 and thus incorporate the limitations thereof. As such, applicant submits that claims 74-77 are distinguished over the cited prior art for at least the same reasons as discussed above with regard to claim 73.

D. Conclusion

Applicant notes that this response does not discuss every reason why the claims of the present application are distinguished over the cited prior art. Most notably, applicant submits that many if not all of the dependent claims are independently distinguishable over the cited prior art. Applicant has merely submitted those arguments which it considers sufficient to clearly distinguish the claims over the cited prior art.

In view of the foregoing, applicant respectfully requests the Examiner's reconsideration and allowance of claims 1, 3-27, 30-43 and 45-77 as amended and presented herein.

In the event there remains any impediment to allowance of the claims which could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Dated this 10th day of August 2006.

Respectfully submitted,

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